

IN THE CLAIMS:

Claims 1-41 have been amended herein. All of the pending claims 1 through 41 are presented below. This listing of claims will replace all prior versions and listings in the application. Please enter these claims as amended.

1. (Currently Amended) A plasma reactor, comprising each openly: first, second and third power generators coupled to one of upper and lower electrodes; and a controller for selectively activating ~~said~~ the first, second and third power generators.
2. (Currently Amended) The plasma reactor of claim 1 wherein ~~said~~ the first power generator is coupled to ~~said~~ the upper electrode and ~~said~~ the second and third power generators are coupled to ~~said~~ the lower electrode.
3. (Currently Amended) The plasma reactor of claim 2 wherein ~~said~~ the second power generator is configured to operate at a frequency of at least three times an operational frequency of ~~said~~ the third power generator.
4. (Currently Amended) The plasma reactor of claim 2 wherein ~~said~~ the first power generator is configured to operate at a frequency of at least greater than or equal to each of ~~a~~ an operational frequency of ~~said~~ the second power generator and ~~a~~ an operational frequency of ~~said~~ the third power generator.
5. (Currently Amended) The plasma reactor of claim 2 wherein ~~said~~ the controller is operable to place ~~said~~ the first power generator in an inactive mode and ~~said~~ the second and third power generators in an active mode.

6. (Currently Amended) The plasma reactor of claim 2 wherein ~~said the~~ controller is operable to place ~~said the~~ first and third power generators in an active mode and ~~said the~~ second power generator in an inactive mode.

7. (Currently Amended) The plasma reactor of claim 2 wherein ~~said the~~ controller is operable to place ~~said the~~ first and second power generators in an active mode and ~~said the~~ third power generator in an inactive mode.

8. (Currently Amended) The plasma reactor of claim 2 wherein ~~said the~~ controller is operable to place ~~said the~~ first, second and third power generators in an active mode.

9. (Currently Amended) The plasma reactor of claim 2 wherein ~~said the~~ controller during a process is operable to configure ~~said the~~ first, second and third power generators to a first activation configuration during a first phase thereof and to reconfigure ~~said the~~ first, second and third power generators to a second activation configuration during a second phase thereof.

10. (Currently Amended) The plasma reactor of claim 2 wherein ~~said the~~ controller is operable to configure ~~said the~~ first, second and third power generators to a plurality of activation configurations during a corresponding plurality of phases of a duty cycle of a process.

11. (Currently Amended) The plasma reactor of claim 10, 10 wherein ~~said the~~ controller is further operable to control power levels of ~~said the~~ first, second and third power generators during ~~said the~~ plurality of activation configurations.

12. (Currently Amended) The plasma reactor of claim 1 wherein each of ~~said the~~ first, second and third power generators is ~~capacitively~~ capacitively coupled to one of ~~said the~~ upper and lower electrodes.

13. (Currently Amended) The plasma reactor of claim 1 wherein ~~said the~~ second power generator operates at a frequency of about 13.5 MHz to about 60 MHz.

14. (Currently Amended) The plasma reactor of claim 1 wherein ~~said the~~ first power generator operates at a frequency of about 40 MHz to about 100 MHz.

15. (Currently Amended) The plasma reactor of claim 1 wherein ~~said the~~ third power generator operates at a frequency of about 1 MHz to about 13.5 MHz.

16. (Currently Amended) A plasma reactor, comprising:  
a vacuum chamber including upper and ~~each~~ lower electrodes therein;  
first, second and third power generators respectively operably ~~coupled~~ coupled to one of ~~to said~~ the upper and lower electrodes; and  
a controller for selectively activating ~~said the~~ first, second and third power generators.

17. (Currently Amended) The plasma reactor of claim 16 further comprising a wafer table, wherein ~~said the~~ lower electrode is coupled to ~~said the~~ wafer table and ~~said the upper electrode~~ electrode is arranged above ~~said the~~ wafer table.

18. (Currently Amended) The plasma reactor of claim 16 wherein each of ~~said the~~ first, second and third power generators is ~~capacitively~~ capacitively coupled to one of the upper and lower electrodes.

19. (Currently Amended) The plasma reactor of claim 16 wherein ~~said the~~ first power generator is ~~capacitively~~ capacitively coupled to ~~said the~~ upper electrode and ~~said the~~ second and third power generators are ~~capacitively~~ capacitively coupled to ~~said the~~ lower electrode.

20. (Currently Amended) The plasma reactor of claim 19 wherein ~~said the~~ second power generator is configured to operate at a frequency of at least three times a frequency of ~~said the~~ third power generator.

21. (Currently Amended) The plasma reactor of claim 20 wherein ~~said the~~ second power generator is configured to operate at a frequency of about 13.5 MHz to about 60 MHz.

22. (Currently Amended) The plasma reactor of claim 20 wherein ~~said the~~ first power generator is configured to operate at a frequency of about 40 MHz to about 100 MHz.

23. (Currently Amended) The plasma reactor of claim 20 wherein ~~said the~~ third power generator is configured to operate at a frequency of about 1 MHz to about 13.5 MHz.

24. (Currently Amended) The plasma reactor of claim 16 wherein ~~said the~~ controller is operable to place ~~said the~~ first, second and third power generators in a plurality of activation configurations during a corresponding plurality of phases of a duty cycle of a process.

25. (Currently Amended) A method of generating a plasma in a plasma reactor, including a vacuum chamber containing a gas and first, second and third electrodes therein operably coupled to respective first, second and third power generators, ~~The~~ the method comprising:

configuring ~~said the~~ first, second and third power generators to a first activation configuration during a first phase of ~~said an~~ etch process; and  
reconfiguring ~~said the~~ first, second and third power generators to at least a second activation configuration during at least a second phase of ~~said the~~ etch process.

26. (Currently Amended) The method of claim 25 wherein ~~said~~ configuring comprises activating ~~said~~ the first and third power generators and deactivating ~~said~~ the second power generator during ~~said~~ the first phase of ~~said~~ the etch process.

27. (Currently Amended) The method of claim 26 wherein ~~said~~ reconfiguring comprises activating ~~said~~ the second and third power generators and deactivating ~~said~~ the first power generator during ~~said~~ at least the second phase of ~~said~~ the etch process.

28. (Currently Amended) The method of claim 25 further comprising reconfiguring ~~said~~ the first, second and third power generators to a third activation configuration during a third phase of ~~said~~ the etch process.

29. (Currently Amended) A method of etching a semiconductor wafer in a plasma reactor, comprising:  
generating first, second and third power signals at upper and lower electrodes ~~further~~ respectively coupled to first, second and third power generators; and  
individually activating ~~said~~ the first, second and third power generators to control ~~said~~ the etching of ~~said~~ the semiconductor wafer.

30. (Currently Amended) The method of claim 29 wherein individually activating comprises activating ~~said~~ the second and third power generators and deactivating ~~said~~ the first power generator.

31. (Currently Amended) The method of claim 29 wherein individually activating comprises activating ~~said~~ the first and third power generators and deactivating ~~said~~ the second power generator.

32. (Currently Amended) The method of claim 29 wherein individually activating comprises activating said the first and second power generators and deactivating said the third power generator.

33. (Currently Amended) The method of claim 29 wherein individually activating comprises activating said the first, second and third power generators.

34. (Currently Amended) The method of claim 29 wherein said individually activating comprises:  
configuring said the first, second and third power generators to a first activation configuration during a first phase of said the etching said of the semiconductor wafer; and  
reconfiguring said the first, second and third power generators to at least a second activation configuration during at least a second phase of said the etching said of the semiconductor wafer.

35. (Currently Amended) The method of claim 29 wherein individually activating comprises configuring said the first, second and third power generators to a plurality of activation configurations during a corresponding plurality of phases of a duty cycle of said the etching said of the semiconductor wafer.

36. (Currently Amended) The method of claim 29 further comprising independently varying power levels of said the first, second and third power generators during said the etching said of the semiconductor wafer.

37. (Currently Amended) A method for etching a semiconductor wafer, comprising:  
providing a plasma reactor, including:  
first, second and third power generators coupled to upper and lower electrodes; and  
a controller for selectively activating said the first, second and third power generators; and

controlling ~~said the~~ first, second and third power generators with ~~said the~~ controller to control ~~said the~~ etching of ~~said the~~ semiconductor wafer.

38. (Currently Amended) The method of claim 37 wherein controlling comprises individually activating in a first configuration at least one of ~~said the~~ first, second and third power generators during at least one phase of ~~said the etching~~ ~~said of the~~ semiconductor wafer.

39. (Currently Amended) The method of claim 38 further comprising individually activating in a second configuration at least one of ~~said the~~ first, second and third power generators during at least another phase of ~~said the etching~~ ~~said of the~~ semiconductor wafer.

40. (Currently Amended) The method of claim 36 wherein independently varying further includes varying ~~each power generator~~ ~~the power levels~~ ~~level of each of the first, second, and third power generators~~ to produce a desired via profile.

41. (Currently Amended) A plasma reactor, comprising:  
first, second and third power generators each operably coupled to one of upper and lower electrodes; and  
a controller operably coupled to each of ~~said the~~ first, second and third power generators, ~~said the~~ controller further configured to selectively activate ~~said the~~ first, second and third power generators in accordance with a variable duty cycle including at least first and second phases.